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BRIEF REPORT

The patient pathway outcomes of a female psychiatric intensive care unit

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Background: Much of the literature on psychiatric intensive care units (PICU) examines either the treatment a patient receives or the unit's readmission rates. There is currently a lack of research into length of stay and patients' post-discharge outcomes or follow-up studies.

Aims: This study explored the care pathway and patient outcomes six weeks post-discharge. Through examining patient care pathways, it was also possible to compare the length of stay at a female PICU against the Department of Health's guidance.

Method: Patient data from internal records were gathered for patients who stayed at a South London PICU between October 2014 and March 2015; this equated to 50 female patient records.

Results: At discharge, 86% of patients went to general acute treatment settings, 6% to home treatment teams, 4% to forensic services, 2% to a mother and baby unit and 2% to a private acute bed. At six weeks post-discharge 4% of patients had returned to the PICU, 52% were in the community, 36% were in acute treatment settings and 4% were absent without leave. Three patients exceeded the Department of Health's recommended maximum length of stay.

Conclusions: The current care pathway appears to be successful in returning patients to the community within six weeks. Within the follow-up period over half of the patients had returned home, whilst a third were in general acute treatment settings.

Key words: clinical outcome; female; discharge; readmission; PICU

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Conflict of interest: None.

Introduction

Clinicians within a psychiatric intensive care unit (PICU) generally work towards the primary goal of patient discharge, with a lack of oversight of the patient's progression subsequent to this (Bowers, 2013). However, the care pathway following PICU discharge is unlikely to be straightforward (Dix, 2007); it may include care in a low secure unit and, in some cases, readmission following discharge. There is a paucity of research on the care pathway following PICU readmittance, although the NAPICU guidelines acknowledge that low secure care may follow a PICU stay for patients with particularly complex and severe psychiatric disorders (NAPICU, 2014).

Obtaining data on patient pathways post-discharge is difficult, and different studies report heterogeneous rates of readmission over different time scales. There are suggestions that readmission rates could be 13% to 28% over a six-month period (Palmstierna et al. 1991; Mitchell, 1992); or 9% to 35% over a year (Warneke, 1986; Lee et al. 2000). Substantial challenges exist when comparing readmission rates across studies, particularly due to the lack of homogeneity of periods studied (e.g. 6 months, 1 year, 2.5 years, 3 years; Bowers et al. 2008). Furthermore, due to disparate psychiatric systems internationally there are drawbacks to the inclusion of studies outside of the UK.

There is also a lack of studies performing patient follow-ups after PICU stay. Brown & Bass (2004) examined discharge location following a PICU stay (male $n = 128$, female $n = 37$). The majority of patients were discharged

to locations within the same hospital under study (male:female 73%:78%), 11% of males and 8% of females were discharged to home, and 2% of males had absconded. A limitation of this study is that it does not describe the various locations of discharge within the hospital. An understanding of these care pathways might support clinicians in offering medical treatment that can continue within a low-secure setting whilst discharge is nearing.

Examining patient pathways also has the benefit of observing PICU length of stay. The recommended length of stay for a PICU is not usually exceeding eight weeks (Department of Health, 2002; NAPICU, 2014). A study of a PICU in Southampton found that the mean length of stay was 34.3 days, with 62% of the admissions lasting less than one month (Brown & Bass, 2004). In this study, five patients exceeded the NAPICU maximum eight-week stay guidance. Delayed discharge is considered a substantial issue within PICUs due to an increasing lack of bed spaces for ill individuals (Onyon et al. 2007). The data collected for this study allowed us to investigate whether this is a particular issue.

Method

We carried out an audit of post-transfer stages of the PICU care pathway in a South London PICU. The local organisation's clinical audit committee approved this audit. Anonymised data from internal records were gathered about patient stays at a female PICU based in South London in the six month period between 1 October 2014

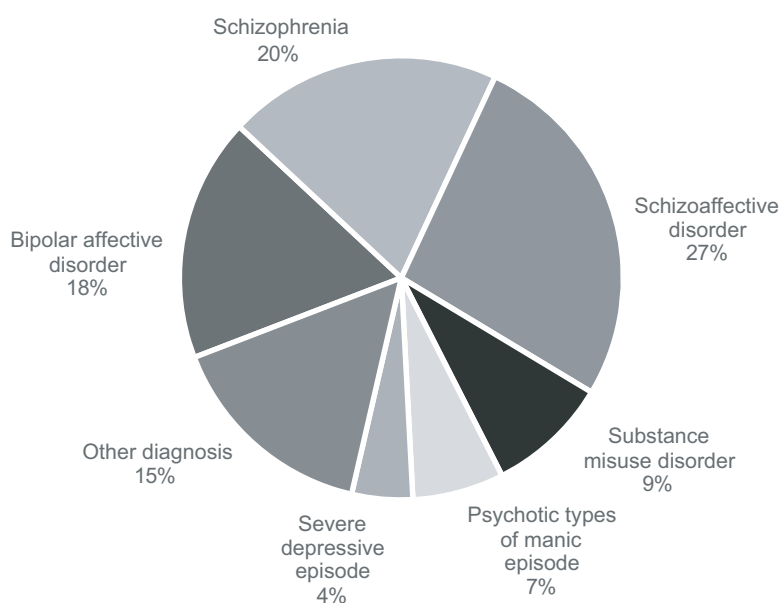


Fig. 1. Percentage of patients by primary diagnosis.

and 31 March 2015. The sample included 49 patients, resulting in 50 data points as one was readmitted to the PICU within the six week post-discharge period and therefore counted twice. Data gathered on the patients included: age at admission; primary diagnosis; whether it was a first episode (based on previous admissions and events recorded); admission and discharge dates; discharge destination; and location six weeks from the day of discharge. Duration of stay was calculated inclusive of the days of admission and discharge. Data was analysed using Excel and SPSS.

Results

Primary diagnoses were very variable. The three primary diagnoses given most frequently were bipolar affective disorder ($n = 12$), schizoaffective disorder ($n = 12$) and schizophrenia ($n = 9$). The category 'other diagnosis' includes physiological condition, unspecified psychosis, post-natal psychosis, emotionally unstable personality disorder, mild intellectual disabilities and mental disorder not otherwise specified. The percentage of patients for each diagnosis is described in Figure 1.

Mean age was 34.32 years, median 33 (range 20–50). For nine patients it was a first episode of mental illness. The mean length of stay on the PICU was 26.5 days, median 24.5 (range 2–77). In total, 28 (56%) of the patients had stay of between 1 and 4 weeks. One patient

stayed for 77 days (11 weeks), two for 56 days (8 weeks), and one each for for 57 and 58 days.

The majority ($n = 43$) of patients with a variety of diagnoses were discharged to acute mental health services. At discharge, 86% of patients went to general acute treatment settings, 6% to home treatment teams, 4% to forensic services, 2% to a mother and baby unit and 2% to a private acute bed (see Fig. 2).

At six weeks post-discharge, 4% of patients had returned to the PICU ($n = 2$), 52% were in the community ($n = 26$) and 36% were in acute treatment settings ($n = 18$) (see Fig. 3).

Discussion

To our knowledge, this is the first study to look at patient pathway destinations (outcomes) following a stay in a PICU. It offers an insight into the care pathways and space within mental health settings that individuals who have been severely ill with a range of disorders occupy. As 52% of patients were living in the community six weeks post-discharge from the PICU, this suggests that the current treatment pathway is successful in returning patients to the community. Furthermore, it appears that this occurs within the relatively short time-scale of six weeks, although even this brief period is acknowledged to be disruptive to patients, particularly to re-establishing friendships (Nolan et al. 2011).

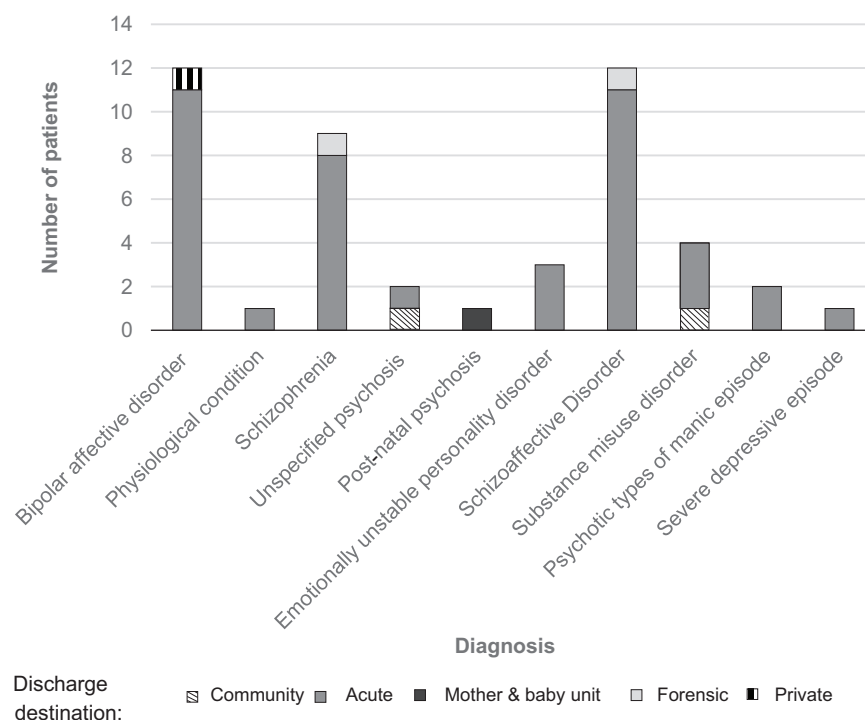


Fig. 2. Discharge destination by primary diagnosis.

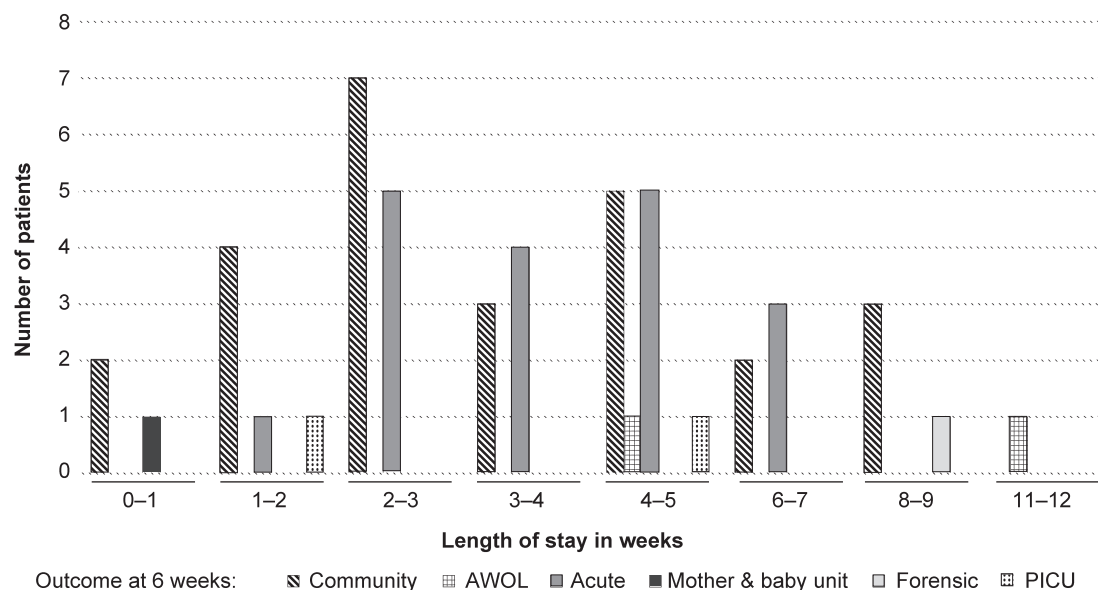


Fig. 3. Patient six week post-discharge location, analysed by length of stay at PICU.

The mean age of patients was similar to that of previous studies (Brown et al. 2008). Discharge destination within this study is closely matched by other research (Brown & Bass, 2004; Brown et al. 2008). The observed mean length of stay of 26.5 days falls within the normative range of 1–4 weeks, and closely resembles the findings of previous studies (Pereira et al. 2006; Brown et al. 2008). Whilst three of our patients exceeded the NAPICU eight-week maximum guideline, Brown & Bass (2004) reported a mean length of stay of 34.3 days in a sample of 165 PICU patients, with six of those patients exceeding eight weeks; our mean length of stay of 26.5 days is 8 days shorter and three patients fewer.

A wide range of diagnoses is supported by the results of large-scale research (Brown et al. 2008; Pereira et al. 2006). However, within the current study there was even greater variation (Fig. 1), demonstrating the extent of different treatments that will be co-occurring within the PICU.

The results of this study highlight the complexity of various patient pathways, with each patient needing a tailored level of stay and care at a PICU. Length of PICU stay appears to affect whether an individual was likely to be in the community six weeks post-discharge, with individuals who had between two and seven weeks of PICU stay 50% more likely to be in an acute setting. It might be considered surprising that three of the individuals with an eight to nine week stay were in the community six weeks post-discharge, as these were likely to have been individuals at the severe end of the spectrum. Elucidation of the reasons for this quick return to the community post-discharge are beyond the scope of this study, but the results highlight a group of patients for further investigation:

those who exceed a seven week stay. Additionally, the patient who stayed in PICU for between 11 and 12 weeks post discharge, suggesting that the care pathway may not have been entirely successful for this individual. Epidemiological studies to assess the longitudinal involvement of mental health services for individuals needing specialised attention would gain great insights into recovery journeys.

The NHS Institute for Innovation and Improvement's (2008) idealised care pathway does not include measures of pathway destination as an outcome. In our study, 52% of patients return to the community within six weeks. This may support patient engagement and cooperation throughout their care.

Study strengths and limitations

The conclusions of this audit are limited by the lack of published research available to compare patient outcomes. This study concentrated solely on the care pathway following PICU admittance, with no consideration of the patient pathway prior to the PICU admission. Nevertheless, a patient whose care pathway starts with compulsory detention may have experienced a rapid decline in mental state such that they require immediate PICU admission (NHS Institute for Innovation and Improvement, 2008). Due to limitations of resources, this audit examined post-discharge location at exactly six weeks. These factors limit the generalisability of the findings. This study has some limitations due to being a study of a single PICU with female patients.

A follow-up study might look at the percentage of these individuals who stay in the community for six months post-discharge with comparison to male PICU patients. It is perhaps surprising that care pathways are not being studied in detail, as treatment would benefit from an understanding of the pathway mechanisms for different patients.

Recommendations

Further study is needed to understand the relationships impacting on care pathway destinations for PICU patients. Whether PICU patients are back in community settings beyond six weeks, and whether PICU readmission rates are correlated with clinical factors (e.g. diagnoses) could be an interesting avenue for exploration. Better understanding through longitudinal study of the types of psychiatric care utilised by patients through the care pathway, may provide opportunities for improvement in quality of care.

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